

## **§ 590.532**

for the purpose of complying with liquid cooling requirements.

[36 FR 9814, May 28, 1971. Redesignated at 42 FR 32514, June 27, 1977 and further redesignated at 46 FR 63203, Dec. 31, 1981, as amended at 47 FR 745, Jan. 7, 1982; 60 FR 49170, Sept. 21, 1995]

### **§ 590.532 Liquid egg holding.**

(a) Tanks and vats used for holding liquid eggs shall be of approved construction, fitted with covers, and located in rooms maintained in a sanitary condition. Notwithstanding the foregoing, tanks designed for installation partially outside of a room or building are acceptable, providing all openings into the tanks terminate in the processing room.

(b) Liquid egg holding tanks or vats shall be equipped with suitable thermometers and agitators.

(c) Inlets to holding tanks or vats shall be such as to prevent excessive foaming.

(d) Gaskets, if used, shall be of a sanitary type.

[36 FR 9814, May 28, 1971. Redesignated at 42 FR 32514, June 27, 1977, as amended at 45 FR 23641, Apr. 8, 1980. Redesignated at 46 FR 63203, Dec. 31, 1981]

### **§ 590.534 Freezing facilities.**

(a) Freezing rooms, either on or off the premises, shall be capable of freezing all liquid egg products in accordance with the freezing requirements as set forth in § 590.536. Use of off-premise freezing facilities is permitted only when prior approval in writing from the National Supervisor is on file.

(b) Adequate air circulation shall be provided in all freezing rooms.

### **§ 590.536 Freezing operations.**

(a) Freezing rooms shall be kept clean and free from objectionable odors.

(b) Requirements. (1) Nonpasteurized egg products which are to be frozen shall be solidly frozen or reduced to a temperature of 10 °F or lower within 60 hours from time of breaking.

(2) Pasteurized egg products which are to be frozen shall be solidly frozen or reduced to a temperature of 10 °F or lower within 60 hours from time of pasteurization.

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(3) The temperature of the products not solidly frozen shall be taken at the center of the container to determine compliance with this section.

(c) Containers shall be stacked so as to permit circulation of air around the containers.

(d) The outside of liquid egg containers shall be clean and free from evidence of liquid egg.

(e) Frozen egg products shall be examined by organoleptic examination after freezing to determine their fitness for human food. Any such products which are found to be unfit for human food shall be denatured and any official identification mark which appears on any container thereof shall be removed or completely obliterated and the containers identified as required in §§ 590.840 and 590.860.

### **§ 590.538 Defrosting facilities.**

(a) Approved metal defrosting tanks or vats constructed so as to permit ready and thorough cleaning shall be provided.

(b) Frozen egg crushers, when used, shall be of approved metal construction. The crushers shall permit ready and thorough cleaning and the bearings and housing shall be fabricated in such a manner as to prevent contamination of the egg products.

(c) Service tables shall be of approved metal construction without open seams and the surfaces shall be smooth to allow thorough cleaning.

### **§ 590.539 Defrosting operations.**

(a) Frozen egg products which are to be defrosted shall be defrosted in a sanitary manner.

(b) Each container of frozen eggs shall be checked for condition and odor just prior to being emptied into the crusher or receiving tank. Frozen eggs which have objectionable odors and are unfit for human food (e.g., sour, musty, fermented, or decomposed odors) shall be denatured.

(c) Frozen whites to be used in the production of dried albumen may be defrosted at room temperature. All other whites shall be defrosted in accordance with paragraph (d) of this section.

(d) Frozen whole eggs, whites and yolks, and yolks may be tempered or

partially defrosted for not to exceed 48 hours at a room temperature no higher than 40 °F. or not to exceed 24 hours at a room temperature above 40 °F.: *Provided*, That no portion of the defrosted liquid shall exceed 50 °F. while in or out of the container.

(1) Frozen eggs packed in metal or plastic containers may be placed in running tap water (70 °F or lower) without submersion to speed defrosting.

(2) The defrosted liquid shall be held at 40 °F. or less, except for product to be pasteurized or stabilized by glucose removal as provided in § 590.530. Defrosted liquid shall not be held more than 16 hours prior to processing or drying.

(e) Sanitary methods shall be used in handling containers and removing egg product.

(f) Crushers and other equipment used in defrosting operations shall be dismantled at the end of each shift and shall be washed, rinsed, and sanitized.

(1) Where crushers are used intermittently, they shall be flushed after each use and again before being placed in use.

(2) Floors and work tables shall be kept clean.

[36 FR 9814, May 28, 1971. Redesignated at 42 FR 32514, June 27, 1977, as amended at 43 FR 60138, Dec. 26, 1978. Redesignated at 46 FR 63203, Dec. 31, 1981, as amended at 60 FR 49170, Sept. 21, 1995]

#### § 590.540 Spray process drying facilities.

(a) Driers shall be of a continuous discharge type and so constructed and equipped to prevent an excess accumulation of powder in the drier, bags, and powder conveyors.

(b) Driers shall be of approved construction and materials, with welded seams, and the surfaces shall be smooth to allow for thorough cleaning.

(c) Driers shall be equipped with approved air intake filters.

(d) Air shall be drawn into the drier from sources free from foul odors, dust, and dirt.

(e) Indirect heat or the use of an approved premixing device or other approved devices for securing complete combustion in direct-fired units is required. A premix-type burner, if used,

shall be equipped with approved air filters at blower intake.

(f) High-pressure pump heads and lines shall be of stainless steel construction or equivalent which will allow for thorough cleaning.

(g) Preheating units, if used, shall be of stainless steel construction, or equivalent which will allow thorough cleaning.

(h) Powder conveying equipment shall be so constructed as will facilitate thorough cleaning.

(i) Sifters shall be constructed of an approved metal or metal lined interior. The sifting screens and frames shall be of an approved metal construction. Sifters shall be so constructed that accumulations of large particles or lumps of dried eggs can be removed continuously while the sifters are in operation.

[36 FR 9814, May 28, 1971; 36 FR 10841, June 4, 1971. Redesignated at 42 FR 32514, June 27, 1977, and further redesignated at 46 FR 63203, Dec. 31, 1981]

#### § 590.542 Spray process drying operations.

(a) The drying room shall be kept in a clean condition and free of flies, insects, and rodents.

(b) Low-pressure lines, high-pressure lines, high- and low-pressure pumps, homogenizers, and pasteurizers shall be cleaned by acceptable in-place cleaning methods or dismantled and cleaned after use or as necessary when operations have been interrupted.

(1) Spray nozzles, orifices, cores, or whizzers shall be cleaned immediately after cessation of drying operations.

(2) Equipment shall be sanitized within 2 hours prior to resuming operations.

(c) Drying units, conveyors, sifters, and packaging systems shall be cleaned whenever wet powder is encountered or when other conditions occur which would adversely affect the product. The complete drying unit, including sifters, conveyors, and powder coolers shall be either wet washed or dry cleaned. A combination of wet washing and dry cleaning of the complete drying unit shall not be permitted unless that segment of the unit to be cleaned in a different manner is completely detached or disconnected from the balance of the drying unit.